

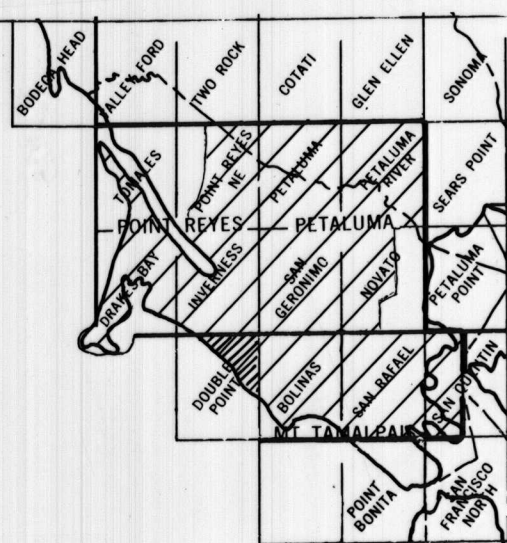
BY
CARL M. WENTWORTH AND VIRGIL A. FRIZZELL
1975

CONSISTING OF BOLINAS, DOUBLE POINT, DRAKES BAY,
INVERNESS, NOVATO, PETALUMA, PETALUMA RIVER, POINT REYES
NE, SAN GERONIMO, SAN RAFAEL, SAN QUENTIN, AND TOMALES
7 1/2 MINUTE QUADRANGLES

DOUBLE POINT

References Cited

Blake, M. C., Jr., Bartow, J. A., Frizzell, V. A., Jr., Schlocker, J., Sorg, D., Wentworth, C. M., and Wright, R. H., 1974, Preliminary geologic map of Marin and Sonoma Counties and parts of Alameda, Contra Costa and Sonoma Counties, California: U.S. Geol. Survey Misc. Field Studies Map MF-574, scale 1:62,500.
Brabb, E. E., and Papey, R. H., 1972, Preliminary map of landslide deposits in San Mateo County, California: U.S. Geol. Survey Misc. Field Studies Map MF-344, scale 1:62,500.
Nilsen, T. H., 1972, Preliminary photointerpretation map of landslides and other surficial deposits of the Mt. Hamilton quadrangle and parts of the St. Bernard and San Jose quadrangles, Alameda and Santa Clara Counties, California: U.S. Geol. Survey Misc. Field Studies Map MF-339, scale 1:62,500.



INDEX MAP

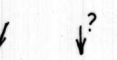
U. S. Geological Survey
OPEN FILE REPORT
This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.

MAP SYMBOLS

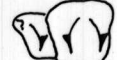
LANDSLIDES



Landslide
identification confident to probable, except uncertain where queried; inferred movement style variable, including uncertain or indeterminate styles



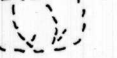
Small Landslide Deposits
arrows indicate direction of inferred downslope movement; deposits generally larger than 100 feet but smaller than 500 feet in maximum dimension; confident to probable; queried where uncertain



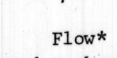
Block Slide
identification confident to probable, except uncertain where queried; consists of those landslides inferred to have moved downslope as relatively intact blocks.



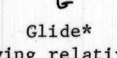
Severe Creep
identification confident to probable, with "wrinkled" or similarly distorted soil surface; identifiable only on grassy or bare ground



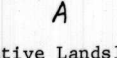
possible landslide or block slide, arrow types as above



Flow
landslide inferred to have moved as a flow well beyond the toe of the failure slope



Glide
landslide involving relatively intact blocks that is inferred to have formed by nearly horizontal movement



Active Landslide
containing evidence of recent movement

ANOMALOUS TOPOGRAPHIC FEATURES

Scarp of uncertain origin* possibly landslide related (line at base of scarp)

Sea Cliffs
cliffs backing beaches or facing open water, may produce falling rock and debris (line at top of cliff)

Anomalous Swale, Trench, or Small Valley* possibly landslide related

Closed Depression
"X" located at bottom, line along rim

ROCK AND SEDIMENT

a, a?
Young Sedimentary Deposits with Constructional Topography
queried where identification uncertain; consists of alluvium, alluvial fans and some terrace deposits; east of and within the San Andreas Rift Zone includes colluvium and dune and beach sands that are distinguished west of that zone

c, c?
Colluvial Deposits
queried where identification uncertain

s, s?
Dune and Beach Sand
queried where identification uncertain

t, t?
Terrace Deposits
queried where identification uncertain; distinguished only locally

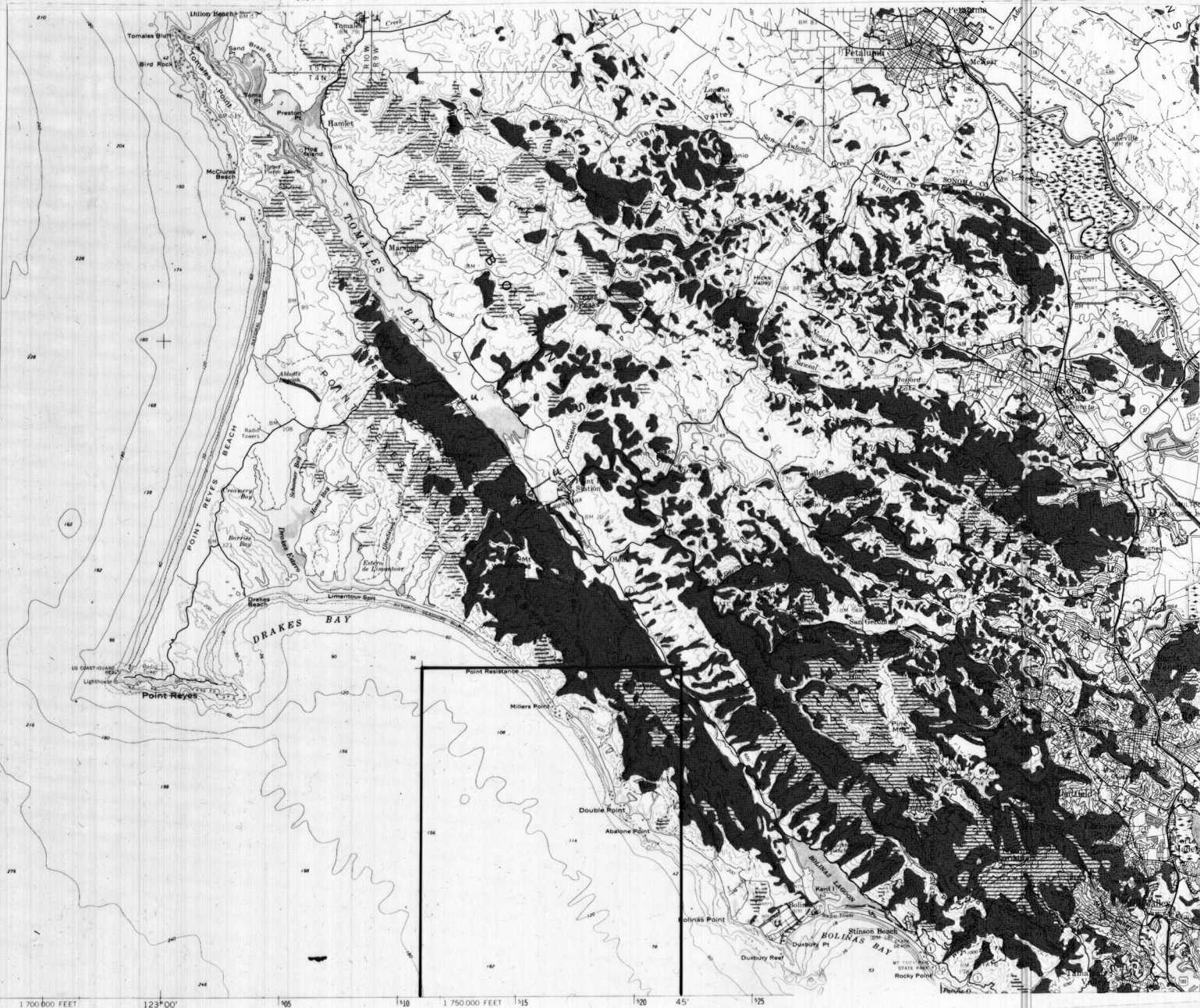
b, b?
Bedrock with Erosional Topography
queried where identification uncertain; ranges from semi-indurated sediment to hard rock, variably covered with soil, labeled only where identity not otherwise evident

*symbol used exclusively east of the San Andreas Rift Zone

Q
Quarry

Limit of Landslide Mapping
landslides are not mapped outside scratch boundary

MAP SHOWING RELATIVE VISIBILITY OF GROUND SURFACE



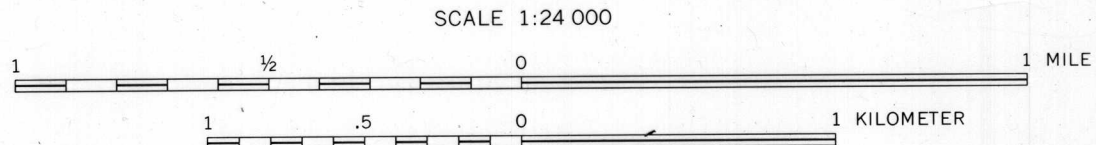
EXPLANATION OF MAP SHOWING RELATIVE VISIBILITY OF GROUND SURFACE

Ground surface least visible, with the ground surface and outline of the ground surface commonly obscured by trees or combinations of trees and brush. Landslides most easily overlooked.

Ground surface usually obscured by brush, but outline of ground surface is observable. Also locally contains areas of trees or grass too small to be shown.

no pattern
Surface of the ground covered by grass and easily visible. Includes some areas of trees or brush too small to be shown. Landslides most obvious.

The following aerial photographs were used in the preparation of the Double Point Quadrangle: U.S. Department of Agriculture (ADCS) Series DBH taken in 1952 and 1953 including photographs numbered 1K-58 to 62, 3K-158 to 163, and 4K-15 to 17 (1:20,000 scale). In addition, photographs taken for the U.S. Geological Survey in 1970 and 1971 were used supplementarily. These include, respectively, Series GS-VCH 1-115 and 116 (1:80,000 scale) and Series GS-VCH 1-43 to 51 (1:30,000 scale).



Mapped by Virgil Frizzell except for area northeast of Olema Creek which was mapped by Carl Wentworth.